

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "Stanley L Flegler" <flegler@pilot.msu.edu>  
Subject: 220 volt power  
Message-ID: <199511281907.0AA54037@pilot01.cl.msu.edu>

I recently acquired a Heathkit SB-220 that is a good candidate for restoration. However, I have a problem with the power required. I presently have two separate 117 volt 15 amp circuits in the room. Neither would be adequate for the SB-220 according to the manual. Adding additional circuits (either 117 or 220) would be a major undertaking because the electrical supply box is full. It just happens that both 117 volt circuits in the room have a light load and that they originate from opposite sides of the electrical supply box. My question is if it would be possible to run a cord to each of the two outlets, tie the white leads together and then get the 220 to 240 volts from the black leads. The SB-220 can be used on either 117 or 220. The manual says that with a 220 volt input, a 10 amp circuit is adequate. To me it seems that it should work as long as I use polarized plugs, good wires, etc. Has anyone had experience doing something like this? Am I forgetting something important?  
73 Stan, K8RPA, flegler@pilot.msu.edu

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: mallick@orion.crd.ge.com (John Mallick)  
Subject: Re: 220 volt power  
Message-ID: <9511282102.AA02935@orion.crd.ge.com>

In theory it is fine, but the National Electrical Code might have something to say about what you want to do...and it wouldn't be "encouraging". The main problem I see is that instead of a single circuit breaker to control the 220V feed, you have two individual breakers. If one breaker trips (or you manually trip it to do some work) and you turn on the SB220 switch, you can "backfeed" the dead branch circuit through the SB220 power transformer and the other live circuit. Not good...

Play it safe and go with a dedicated 220V feed and breaker; it's not worth risking someone's life to do it on the cheap.

73, John WA1HNL

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Bill Sorsby <bill.sorsby@dlepl.itg.ti.com>

Subject: Re: 220 volt power

Message-ID: <199511282106.PAA10362@dlep1.itg.ti.com>

At 02:40 PM 11/28/95 -0600, you wrote:

>I recently acquired a Heathkit SB-220 that is a good candidate for restoration.  
>However, I have a problem with the power required. I presently have two  
>separate 117 volt 15 amp circuits in the room. Neither would be adequate for  
>the SB-220 according to the manual. Adding additional circuits (either 117 or  
>220) would be a major undertaking because the electrical supply box is full.  
>It just happens that both 117 volt circuits in the room have a light load and  
>that they originate from opposite sides of the electrical supply box. My  
>question is if it would be possible to run a cord to each of the two outlets,  
>tie the white leads together and then get the 220 to 240 volts from the black  
>leads. The SB-220 can be used on either 117 or 220. The manual says that with  
>a 220 volt input, a 10 amp circuit is adequate. To me it seems that it should  
>work as long as I use polarized plugs, good wires, etc. Has anyone had  
>experience doing something like this? Am I forgetting something important?  
>73 Stan, K8RPA, flegler@pilot.msu.edu

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>  
>

I disagree with the assertion that you can't run an SB-220 off of 110V. I did it years ago when I lived in an apartment. Mostly ran the SB-220 in its lower power position and it did just fine. Course the apartment lights blinked something awful when I keyed the transmitter... You could probably even get away with using the high power position for SSB. And since it's well known that the filament voltage runs too hot on the SB-220, the reduced supply power might even extend the life of those expensive 3-500Z's.

I wouldn't recommend using the two separate AC lines to obtain 220. Technically, you are correct, but, at the very least it is not especially safe. Among other things you will not have both breakers set to trip simultaneously.

Funny things can happen when you only trip one side of a circuit. I once worked for a TV station when the transmitter site lost one leg of a three phase supply for the driver cooling blower. The interlocks remained engaged but with considerably less cooling air the driver tubes literally melted. When the station went back on the air it was with just a hundred watts or so instead of 50 kW and it took several days to rebuild that transmitter.

Regards,  
Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: 220 volt power  
Message-ID: <Pine.SOL.3.91.951128161730.813A-1000000@iglou2>

> experience doing something like this? Am I forgetting something important?  
> 73 Stan, K8RPA, flegler@pilot.msu.edu

It should work just fine plus you really have a good ground return path  
with two neutral wires. Just don't tell the electrical inspector!

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "James D. Howard" <jdhoward@helps.com>  
Subject: Re: 220 volt power  
Message-ID: <Pine.LNX.3.91.951128152642.9063A-1000000@helps.helps.com>

> At 02:40 PM 11/28/95 -0600, you wrote:  
> I recently acquired a Heathkit SB-220 that is a good candidate for restoration.  
> However, I have a problem with the power required. I presently have two  
> separate 117 volt 15 amp circuits in the room. . .  
> It just happens that both 117 volt circuits in the room have a light load and  
> that they originate from opposite sides of the electrical supply box. My  
> question is if it would be possible to run a cord to each of the two outlets,  
> tie the white leads together and then get the 220 to 240 volts from the black  
> leads. . . To me it seems that it should  
> work as long as I use polarized plugs, good wires, etc. Has anyone had  
> experience doing something like this? Am I forgetting something important?  
> 73 Stan, K8RPA, flegler@pilot.msu.edu

I did it for years. I had a Johnson Invader 2000 running at full power.  
Never any problems.

---

James Howard      jdhoward@helps.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: michaelk@kentrox.com (Michael Kersenbrock)  
Subject: Re: 220 volt power  
Message-ID: <9511282359.AA05625@bertha.kentrox.com>

> that they originate from opposite sides of the electrical supply box. My  
> question is if it would be possible to run a cord to each of the two outlets,  
> tie the white leads together and then get the 220 to 240 volts from the black  
> leads. The SB-220 can be used on either 117 or 220. The manual says that with  
> a 220 volt input, a 10 amp circuit is adequate. To me it seems that it should  
> work as long as I use polarized plugs, good wires, etc. Has anyone had  
> experience doing something like this? Am I forgetting something important?  
> 73 Stan, K8RPA, flegler@pilot.msu.edu

Yes, I once did something like that on a temporary basis until I had a 240V line installed permanently to the "shack" from the breakerbox.

I used a standard outlet box with standard a 240V outlet plate & recepticle. I had two (three prong) cords coming out of the outlet box -- which were plugged into the appropriate outlets.

I then used the standard 240V connector on my SB-221 (which I built a couple years after the SB-2xx line was discontinued) built as a SB-220.

Now that I've a dedicated outlet for the SB-220/1 (using the same plug!), I can run the SB-200 backup amp off of 120V.

Mike, WB4IOJ

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: 220 volt power  
Message-ID: <9511282152.AA07488@bock>

Well, faking 220V out of two opposite 110 runs should work OK.  
It will probably violate a few sections of the Electrical Code, so t'would be best not to use any permanent wiring for the hookup, but rather, as you said, a pair of ordinary-looking 3-wire 110V plugs, each on one line cord from the rig, and each intended to go into one receptacle.

Ideally, if the equipment expects a neutral lead as well, you should connect that to one and only one of the 110V plugs, as the Code does not like neutrals (white wire) of different legs

being tied together.

You may use both green-wire grounds, tho.

If you want it code-legal, you can run a 3-wire 220V leg to your shack (made from the two 110V legs) with a single, big neutral wire, and fan out 110V legs from that.

But that's a lot fo work. And maybe still not legal to use 110V taps on the 220 run, since pulling the fuse on one side does not guarantee no voltage on that side (current can sneak around from the opposite side via any 220V appliance that's switched on, like your xmtr).

In fact, while your SB-220 is plugged in with the "trick" dual line cords, and switched on, that hazard exists -- you'll have to remember to pull BOTH fuses to work on EITHER side in the future (or at least unplug your trick transmitter cords). That's probably why the Code takes a dim view of such tricks -- they can come up and bite you.

At least with the dual line cord trick you don't wire any permanent hazard into your house, to lie in wait for the next, less imaginative owner.

73, mike k w9nrd

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: jproc@worldlinux.com

Subject: RE: 220 volt power

Message-ID: <Chameleon.4.01.2.951128102843.jproc@>

>My question is if it would be possible to run a cord to each of the two  
>outlets, tie the white leads together and then get the 220 to 240 volts from  
>the black leads.

Stan,

To answer your question directly, the white leads are all tied together (and to earth ground) in the fuse box intentionally, so twisting them together is pointless at the outlets. If you choose to run your 220V linear on 120V, that might work as suggested by some of the posts. Here's what I don't understand. A typical 1000 watt linear may draw 8-9 amps at 220V. If it's equipped with a dual voltage primary, then it will draw 16 to 18 amps at 120V. Typical #14 gauge house wiring is rated for 15 amps. How can that work unless a new line is installed to the operating position? Is there something that I am missing in my analysis?

Although it will work electrically, I take objection to using two separate breakers to provide 220 only from the view point of the electrical safety code. Suppose you had a fire in your residence unrelated to electrical wiring

but this precipitated an inspection of your electrical wiring. An insurance company might null and void your property insurance on the basis that you intentionally violated the electrical code.  
You never know what can happen.

Regards,

~~~~~  
Jerry Proc VE3FAB  
E-mail: jproc@worldlinx.com  
Radio Restoration Volunteer  
HMCS Haida, Toronto Ontario  
~~~~~

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: 220 volt power  
Message-ID: <199511290315.VAA16029@zoom.bga.com>

I'd go back and take another look at that box and see what could be done. What you really want is a 230 volt 20 amp circuit. I've had just enough adventures with single-phase faults, both on three-phase and on 115-0-115 that I am much happier with a breaker that kills all circuits if one goes out. You will also want to be sure to get the proper NEMA connector for the 230 volt circuit.

One thing to keep in mind is that if you do something that is not to code, and have an insurance claim, you can have a lot of grief with the insurance co., even if the non-code changes aren't involved in the claim.

Depending on how old your house is, accessibility to wiring, etc., there are generally alternatives that can free up some capability. I stick with the NEC code, because most of it is just plain common sense.

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\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "MELUCAS, MARC P." <MELUCAS@wsmc-mis.af.mil>  
Subject: RE: 32V3 LV Transformer  
Message-ID: <199511290233.UAA10617@uro.theporch.com>

Gang-

I have a 32V3 that once suffered the "infamous" LV transformer failure. She is S/N 556. Just this year, I had her restored by Howard Mills, W3HM. One of many abominations she had endured was a poorly rigged replacement of her LV transformer by some previous owner. At my insistence, Howard ordered the Peter W. Dahl replacement for this transformer, and installed it during the course of all the other major surgery. Specifically, this transformer is labeled "Custom P/N 32V 1/2/3, S/N 072895, Peter W. Dahl Transformer Co.", and set me back \$99. I am aware of another transformer company that also makes such a direct replacement for this LV transformer, but I wanted the Dahl. My 32V3 now works great, and I am pleased with the results. Hope this information is of help.

Marc Melucas, KB0JPQ  
MELUCAS@wsmc-mis.af.mil

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: pmills@cyberhouse.com (Phil Mills)  
Subject: 4D32 usage  
Message-ID: <199511282333.RAA11659@ns.cyberhouse.com>

In case anyone is interested in this trivia, responses from members of this list indicate that the 4D32 was used in the Collins 32V series, the Johnson Viking I, and the Hallicrafters HT-20. Upon looking in the "Tube Type Transmitter Guide", I confirmed the first two but see that the book says it was the Hallicrafters HT-30 that used the 4D32. Anyone have any first hand knowledge? Also, I did not get a response from anyone who could confirm that the cut pin represented a keyway. The seven pins on it are symmetrically arranged (at least to my deranged eye). I also notice on the 7-pin transmitting tube socket on my TV-2 tester, one pin is large. Anyone care to comment/explain?

thanks,  
Phil

Phil Mills, AB5TH  
pmills@cyberhouse.com  
713-482-2763

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "Jack Giehl" <JACKG@s1.xetron.com>

Subject: 51S-1 Rx Problem  
Message-ID: <2DC667F14B7@s1.xetron.com>

Dear BA Enthusiasts,

Don't you just love to see the UPS truck pull up in front of your house and leave a BA package! I just got a Collins 51S-1 receiver. It is a round emblem around SN 5500. A manual should arrive in a few days.

The problem: The 51S-1 has low sensitivity (50 uv tone modulated signal just audible) on all bands. I have checked all of the tubes.

Before I start troubleshooting after the manual arrives, I thought I would see if anyone on here might have encountered a similar situation. Any ideas?

Jack

73,

=====  
Jack, WB8BFS  
jackg@xetron.com      Loveland, Ohio (near Cincinnati)  
=====

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: 75A-4 Parts needed  
Message-ID: <Pine.3.89.9511290754.E6923-0100000@unixs7.cis.pitt.edu>

I am in need of the dial lock assembly from either a KWS-1 or 75A-4 front panel. Also need the two shafts that connect to the BFO and mechanical filter switch for a 51J-4 receiver.

Thank you.

Dave, W3BJZ

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: List Admin/Owner BoatAnchor Mail List <listown@jackatak.theporch.com>  
Subject: Administrivia: \*REMINDER\* System Outage  
Message-ID: <9511290727.aa08287@jackatak.theporch.com>

Gang-

This is the penultimate reminder that day after tomorrow, this



Friday, 1 December 1995, the \*entire\* connection to the InterNet for our ISP \*WILL\* be down from 07:00 to midnight... Not \*just\* theporch.com, but ALL systems connected through the ISP we use!

We hope things will go according to plan, but since we know in advance,

PLEASE EVERYONE... be patient and do not ping the list or send duplicates because you do not see a submission reflected back... it \*won't\* happen, and when we do come back on line, that would make the recovery really difficult and more problematic...

PLEASE help us out and try to remember to "Go Lite" on Friday!

Thanks.

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)  
- - - BoatAnchor Mailing List Archiver/Owner - - -  
firebot1@jackatak.theporch.com ---- listown@jackatak.theporch.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "Clark, Ian R." <IClark@vnpbtrom.telecom.com.au>  
Subject: Audio Output Transformers  
Message-ID: <30BCB749@msmailv0.telecom.com.au>

Michael.J.Knudsen@att.com said -

>I like Rodger's theory about why the two sides of a center-tapped winding  
>would have different resistances. Makes sense, and eases my mind --  
>I have several radios with push-pull output, and the audio xformer  
primaries  
>always have different resistances, often 20% apart. Yet no other  
>evidence of shorted turns (ie, the radios sound great).

>I wonder if some of the fancier hi-fi transformers are wound in such a way  
>as to use equal lengths of wire, therefore putting the same ohmic  
resistance  
>in both legs? You don't have to be an audio-phreak to see that this  
>might improve the push-pull balance and reduce harmonic distortion.

>From memory the best way to wind Large audio transformers is not in  
'horizontal' layers as in power transformers, but in side by side 'vertical'  
windings. This reduces leakage inductance and if you have several  
'vertical' windings you can interleave them to reduce winding

capacitance. (No doubt others have more experience in this).

The standard power transformer way was no doubt easier before the days of plastic bobbins and for a 'Communications Quality' transmitter probably didn't matter much.

Just as an aside, I wonder how many power transformers got used as Modulation Transformers ?

IClark@VNPBTROM.Telecom.com.au  
VK3KRI

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: Bob Roehrig <broehrig@admin.aurora.edu>

Subject: Re: BA Fax by Alden

Message-ID: <Pine.ULT.3.91.951128183306.7959E-100000@admin.aurora.edu>

On Mon, 27 Nov 1995, Dick Dillman wrote:

> This past weekend I removed from long term storage an item that might  
> interest fellow list members. It's an Alden model 519M(T)-EA marine  
> facsimile recorder. While not hollow-state (its electronics use  
> discrete transistors) it may perhaps qualify as a genuine boatanchor  
> by size and weight. It's almost 5ft. high and takes two strong people  
> to lift. SNIP

Dick, that reminds me of back in the 60's when a bunch of us obtained a lot of surplus Western Union "deskfax" machines. I still have several here. We modified them and used them on 2 meters and had a ball sending newspaper cartoons & circuit drawings back & forth. Still have the original manuals & all the mods we performed. The main problem was to get them to send a "positive" picture and to get a sync circuit that would work off the air. Next step was to make a converter to make them FSK or AFSK (whatever the case). Never did that yet. I believe they were made by Seeburg, the juke-box people. They sold for 2 for \$15.00 at the time.

73 de Bob, K9EUI

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: "ROBERT W DOWNS, WA5CAB" <103012.2130@compuserve.com>

Subject: BC-221 Questions...

Message-ID: <951129142054\_103012.2130\_GHU49-2@CompuServe.COM>

BA'ers and Dan Kerl,

No one else answered Dan's questions so here goes.

Dan Kerl, BA #342, posted some BC-221 questions. I collect (and use) the things and must have around 50 of them, but still don't have a good one of all models as many of mine are dups - anyone having one for sale/trade drop me a note at 103012.2130@compuserve.com.

The most <probable> cause for the crystal oscillator being 2.3MC off is the crystal. There isn't that much else in the circuit. I GUESS I could part with one, Dan. About \$5.00 for the trouble of going to the storage building and finding it, and testing it, plus UPS.

The only common failures in a BC-221, other than a leaky capacitor (which doesn't happen nearly as often as the "I pulled out all the caps and replaced them with 'modern' units" crowd would have you believe), are either modifications, mechanical, tubes, or fixable with contact cleaner, WD-40 or a point burnisher. The crystal oscillator will sometimes be up to a few 100 Hz off, but I've not encountered one with a good crystal that wouldn't adjust on. The dumb headphone jack filament switch contacts were there to keep the dumb technician from leaving it on and running the batteries down. Rad Shack used to sell a right-angle phone plug that the front cover will close over.

150 volts is too high for the B supply but probably won't do any damage other than increase the warmup drift. The set was designed to operate on batteries over the range 70-135 volts. The RA-133 power supply built for the sets after the war had a 1 watt resistor between the VR-150 and the B+ terminal. In most of mine, the resistor has gone way high, and I've replaced them with a 2200 ohm 1 watt resistor shunted by a 14 volt 1 watt zener, which significantly improves the regulation when switching modes (I had a bunch of that value resistor, and they made mounting the diodes neater). You could do the same with your home-brew supply. BTW, do NOT operate the home-brew supply with the battery compartment door closed. You can tell whether a unit has or ever had a home-brew supply in it by opening the front cover and sniffing for burned transformer insulation. The other give-away of course is a hole or notch in the back door for the line cord, which ruins the case. You might want to check the supply over as well. Most of the 30 or so that I've seen were poorly done.

TM 11-300, July 44, with Change 1, covers all the models (except the pre-production prototype) from -A to -AN and is quite common. How many would you like? \$15.00 each (normally a \$22.30 value, he said tongue in cheek). If the -D schematic, which is quite different, is in a tech manual for BC-221-D, I'll swap even. The -D uses 6 & 7 pin glass tubes like the LM does. -E uses loctal. A couple were mixed, and -K and later use metal octal.

The BC-221's, even after half a century, have more than adequate stability for tuning boatanchors. Common as they are, I use two for receiver front end alignment, one for each end of the band. That way, I only have to crank the receiver up and down. With some sets, such as the TCS and Super Pro, the same

settings work for all the bands, as they are harmonically related.

73, Robert, WA5CAB

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: David Stinson <72227.1640@compuserve.com>  
Subject: BIG COLLINS MECH FILTERS  
Message-ID: <951129074421\_72227.1640\_EHM45-5@CompuServe.COM>

A generous soul just passed two Collins filters to me.  
As you all know, Collins and I are about like oil and water.  
We just don't usually mix.  
The filters are 100 KC with 3 KC bandwidth,  
Collins Type F 100 Z 7.

Are these good for anything??

73 DE Dave Stinson AB5S/7  
72227.1640@compuserve.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Robert King <reking1@ix.netcom.com>  
Subject: Boonton Q Meter  
Message-ID: <199511290034.QAA14937@ix7.ix.netcom.com>

Anyone out there know what happened to the Boonton  
Radio Company? I have a Boonton Q Meter, Model 260A,  
(ca 1964) and would like to locate a set of the  
calibrating inductors, type 103A, originally furnished  
as an accessory for this instrument. The company must  
have gone belly-up some time ago as there is no sign  
of it in the current trade literature.

Bob King  
Rancho Palos Verdes, CA  
reking1@ix.netcom.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "Cal J. Eustaquio" <ceustaqu@violin.aix.calpoly.edu>  
Subject: BW SSB adaptor sold.  
Message-ID: <Pine.A32.3.91.951128130857.23317C-1000000@violin.aix.calpoly.edu>

The SSB adaptor is sold. For those of you who wanted to know what this little beast was, it is a Sideband adaptor specifically used for tuning in SSB signals with more selectivity than the old "ride the RF gain and BFO" method of tuning in. This unit is much lighter than the CV-591 and has its own integral spkr. I wish I still had the unit as it does make for some interesting writing for ER. 73's. Cal, N6KYR.

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Calibration of Hickok Tube Testers  
Message-ID: <Pine.ULT.3.91.951128200217.15596B-100000@dua150.kpt.emn.com>

I have both a Hickok 539 and a 6000 tube tester. With certain tubes I see considerable differences between the testers - but not with others. I know there are internal calibration adjustments for these testers but I have NEVER seen a procedure published on how these are done.

I can generate the characteristic curves for a typical tube and calculate the transconductance, plate resistance, and amplification factor easy enough but these measurements are made with constant voltages on the grid, screen, etc. The Hickoks essentially use unfiltered DC to power the tube electrodes so their meter reading is really some sort of average. I suspect the differences seen with certain tubes but not others is due to differences in screen voltage, etc. [Interesting idea... I have not tried a number of triodes.]

Does anyone have a copy of the calibration procedure for these testers?

Likewise, am I overlooking something quite simple in how these testers work? I assume they do something similar to the tests described in the RCA tube manuals (drive the grid with 1 volt, AC meter in the plate, etc.).

The 539C seems to be the gold standard that hamfest sellers test their tubes on. It would be nice to know they were in calibration.

[And before anyone points this out, I realize that the absolute measurement of  $\mu$ ,  $g_m$ , and  $R_p$  is hardly necessary and that good design compensates for significant variations in these. It is just that since I work in instrumentation, calibration is a big issue to me. Maybe Roy Morgan or someone else at NIST can relate to this. Also does anyone have a good Weston cell or other voltage standard they might be willing to sell inexpensively? Thanks.]

73, Barry WA4VZQ ornitz@eastman.com

Please use this address and not the bunged up one our firewall gives out!

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Re: Calibration of Hickok Tube Testers  
Message-ID: <9511290433.AA12403@texan.frco.com>

Barry asks about a Weston cell or other voltage standard. He beat me to it. I had one years ago, out of a Foxboro EMF Dynalog chart recorder. Seems to me it was just a collection of chemicals that shouldn't be too hard to find, and there ought to be a way around using an H shaped glass tube. How about "or other"? If someone has a voltage standard that would survive shipping, maybe they'd consider renting it to those in need, for a quick turnaround.

The reason I find myself looking for a standard is that I finally fixed an HP412A VTVM (the 12AX7 was good, but noisy), and wondered how I'd ever calibrate it. And, there's an HP 3440A DVM coming, so I'm looking for something more accurate than a dry cell.

Bill Hawkins bill@bvc.frco.com 612 895-2085 Minneapolis, MN USA

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Peter Gerba <pgerba@crl.com>  
Subject: Collins 32V1  
Message-ID: <Pine.SUN.3.91.951128183136.26389A-100000@crl8.crl.com>

Late model 32V1 in good-fair condx. It has some of the 32V2 changes (hole above ant load control, etc) The front pannel is in very good shape. There are some small rust spots on the cabinet. The HV rect has a tubster in the socket. It needs cleaning...comes with a new, in the box final. It has not been on the air in at least 10 years. I don't want to ship it (106 lbs). I'm in San Francisco, come and see it.

\$500 or reasonable offer.

pete  
pgerba@crl.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: lbbarley@southwind.net (Bruce Barley)

Subject: Dixie Cannon Ball HI-Z Phones  
Message-ID: <199511281926.NAA28214@onyx.southwind.net>

Hello, all

I am asking for information about a double set of high impedance earphones I saw this morning at a local flea market.

Let me describe them to you.

The sign said they were Army Communications Corp. surplus.

The phones were a chrome metal can with plastic (phenolic?) screw on ear covers. The back surface of each metal can was stamped or engraved with "Dixie Cannonball" and a stylized logo head. I did not find any military identification on them. The cord was cloth covered, in fair to good shape and had 2 small pins for electrical connection. The connections at the earphones themselves was to 2 small isolated screws and ring terminals on the back surface of each can.

I have not seen a pair quite like these. Are they indeed military? Are they just another pair of headphones or is there some particular intrinsic value to them?

The price was \$17.50, which seems fair I guess as AES is asking over \$13 for the product they sell. I don't especially need them, but if they are worth going for, someone please advise.

Thanks.

Bruce KB0PZD  
lbbarley@southwind.net

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Peter Gerba <pgerba@crl.com>  
Subject: Drake MS-4  
Message-ID: <Pine.SUN.3.91.951128184629.26389D-100000@crl8.crl.com>

Drake MS-4 Speaker.

In good condx. \$50

pete  
pgerba@crl.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: Re: Drake T4XC plate current...  
Message-ID: <Pine.ULT.3.91.951128182106.7959B-100000@admin.aurora.edu>

On Tue, 28 Nov 1995, John Mallick wrote:

> While fiddling with my newly acquired Bird wattmeter last night, I  
> found that my T4XC was putting out only about 35 watts (into a dummy  
> load) with about 300 mA on the plate current meter (this is where I  
> normally run it). If I follow the instructions in the manual to  
    SNIP  
> So, what's the scoop? At about 300 mA I should about 200W input, but  
> the output is low. Poor drive?

John, what element are you using in the Bird? I have seen folks try and use elements that are out of the normal frequency range and while you will get a reading, it will be off.

Bob, K9EUI (broehrig@admin.aurora.edu)

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "ROBERT W DOWNS, WA5CAB" <103012.2130@compuserve.com>  
Subject: Gibson Girl...BA #344  
Message-ID: <951129142049\_103012.2130\_GHU49-1@CompuServe.COM>

The postwar transmitter set that replaced the WW-II SCR-578 was the AN/CRT-3. The sets consisted of a transmitter and a bunch of accessories, such as a kite and a hydrogen balloon to lift the antenna, but never had any receiving capability.

The AN/CRT-3 stayed in the inventory into the 90's, when the 500 KC watch ceased. One of the tenders, Proteus I think, turned some in to DRMO Guam in the Spring of either '92 or '93. With typical politically correct hazardous material hysteria, they were all destroyed. I forget the specific excuse. The Admiral in charge of DRMO at the time was also afraid that they would fall into Sadaam's hands!

73, Robert Downs, CW04 USNR, WA5CAB

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: EKnobloch@aol.com



Subject: Re: Hammarlund Linear Questions  
Message-ID: <951128144604\_60645918@mail06.mail.aol.com>

(page 1 of 2)

Spindob@water.ci.seattle.wa.us had general questions about the Hammarlund HXL-1

One good design feature of the HXL-1 was that the 572B tubes were mounted vertically, which reduced the danger of shorts between the filament and grid of the tubes. The filament in the 572B spans quite a distance, and the grid seems awfully close. I believe the manufacturers were more careful with 572B's than with 811A's in terms of aligning the filaments with the filament pins on the base of the tube.

A disadvantage of the HXL-1 is that they rectified the 6.3V filament voltage as the source for standby "cut off" voltage, instead of using a separate bias transformer. Half wave rectified, it only provides about -10V to the grids during standby, which is not enough for cutoff of plate current. In my HXL-1, the tubes draw 25mA in standby, or about an extra 50W heating the cabinet.

Early HXL-1's had an untuned cathode input, although there was a rotary switch in the grid circuit that connected the input to different taps on the side of the filament choke, depending on band in use. In later versions, they upgraded the input circuit to an "L" network, using the same rotary band switch.

Later versions also had separate parasitic chokes for the two tubes, instead of one parasitic choke serving both plates, which must have lead to problems.

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: EKnobloch@aol.com  
Subject: Re: Hammarlund Linear Questions (2)  
Message-ID: <951128144607\_60645934@emout05.mail.aol.com>

(page 2 of 2)

Another drawback is the lack of ALC. There is a meter position which compares the rectified samples of the input and output, similar to the "tune" function of the Collins 30L-1, but Hammarlund does nothing to reduce the gain of your exciter should you drive the amplifier too heavily.

The only real "error" I see in the design is that they used 2 ea 2-Watt

carbon resistors in series to meter the high voltage. This is about 100% voltage overload for the resistors.

Another thing to watch is that the unit was designed in the days of 110V service. If your shack voltage is 125VAC, you can expect about 6.8V across the tube filaments, instead of 6.3V, which will lead to short life for the 572B's. A 12 Ohm, 20 Watt resistor placed in series with the primary of the filament transformer brought it back to 6.3 volts, and also provides some inrush current limiting.

(I broke this response into two parts, since America On Line seems to choke at the 2K file point.)

73

K4PF      EKnobloch@aol.com

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: k1oik@ccsnet.com

Subject: Hammerlund speaker

Message-ID: <TCPSMTP.15.11.29.5.50.14.2644608140.2703145@ccsnet.com>

Nice gray color with emblem on front, will listen to offers.

Burt Fisher

K10IK

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: Peter Gerba <pgerba@crl.com>

Subject: Harvy Wells T-90

Message-ID: <Pine.SUN.3.91.951128183928.26389B-100000@crl8.crl.com>

Harvy Wells T-90 Band Master.

It's in fair shape. The cabinet could use a paint job. It hasn't been on the air in a long time.

\$45

pete

pgerba@crl.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: daniel wright <djw@unlinfo.unl.edu>  
Subject: Heath Book/ER/A Class Act!  
Message-ID: <9511290030.AA20204@unlinfo.unl.edu>

I just recently purchased the new Heathkit book from Electric Radio. I really haven't had much time to read it, but it looks real good.....(8->!  
Well today I received the "missing" page 144 in the mail from ER. It was in a full size envelope, with a piece of cardboard in it so the page wouldn't get folded (although my mail carrier tried his best!). This must have been an expensive situation...nice envelope..mailing label...55 cents postage... and a cardboard insert...quite impressive!! Thanks Barry.....you are a class act!!

73 de Dan -- WA0JRD ..

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Peter Gerba <pgerba@crl.com>  
Subject: Heath DX-35  
Message-ID: <Pine.SUN.3.91.951128184254.26389C-100000@crl8.crl.com>

DX-35 in good shape. It should fire up ok. Cabinet et all in fine shape.  
\$75 or trade for Johnson Adventurer.

pete  
pgerba@crl.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: bcutter@teal.csn.net (Bob Cutter)  
Subject: Heath VFO  
Message-ID: <199511282223.PAA10315@lynx.csn.net>

I am still looking for a VFO for my DX 40. Any extras sitting unused out there?

73, Bob KI0G  
END

Bob Cutter, .....Glenwood Springs, CO

KI0G

bcutter@teal.csn.net

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: k1oik@ccsnet.com  
Subject: Heath VF0  
Message-ID: <TCPSMTP.15.11.28.-15.32.26.2644608140.2698767@ccsnet.com>

BC>To: Multiple recipients of list <boatanchors@theporch.com>  
BC>Subject: Heath VF0

BC>I am still looking for a VF0 for my DX 40. Any extras sitting unused out th

BC>73, Bob KI0G  
BC>END

BC>Bob Cutter, .....Glenwood Springs, CO

I think I saw a VF-1 drifting by.

Burt Fisher  
K10IK

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: bcutter@teal.csn.net (Bob Cutter)  
Subject: Re: Heath VF0  
Message-ID: <199511282326.QAA12765@lynx.csn.net>

Now that hurts, but then the truth often does. Catch it for me if it drifts by.

73, Bob KI0G  
>  
>I think I saw a VF-1 drifting by.  
>  
>Burt Fisher  
>K10IK  
>  
>  
>  
>  
END

Bob Cutter, .....Glenwood Springs, CO

KI0G

bcutter@teal.csn.net

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Heath VFO  
Message-ID: <Pine.SOL.3.91.951128213614.16120A-1000000@iglou>

> I am still looking for a VFO for my DX 40. Any extras sitting unused out there?

I'm looking for a DX-40 for my VF-1. Any ideas?

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Dave Hockaday <wb4iuy@nando.net>  
Subject: Re: Heath VFO  
Message-ID: <9511290312.AA12730@merlin.nando.net>

At 08:40 PM 11/28/95 -0600, you wrote:

>> I am still looking for a VFO for my DX 40. Any extras sitting unused out there?

>

>I'm looking for a DX-40 for my VF-1. Any ideas?

>Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

You guys need to have a talk/swap meet :-)

73 de WB4IUY

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: k1oik@ccsnet.com  
Subject: Re: Heath VFO  
Message-ID: <TCPSMTP.15.11.29.5.43.30.2644608140.2703141@ccsnet.com>

WB>To: k1oik@ccsnet.com  
WB>From: Dave Hockaday <wb4iuy@nando.net>  
WB>Subject: Re: Heath VFO

WB>>I think I saw a VF-1 drifting by.

WB>>  
WB>>Burt Fisher  
WB>>K10IK

WB>Hey Burt! I have a friend locally that uses one of those VF-1's. He did some  
WB>major rework on his, 'cause it constantly "drifted by", heehee. I guess  
WB>that's part of the fun of boatanchors...

WB>73 de Dave WB4IUY

I once tossed my VF-1 in the ocean, it drifted all the way from the  
Connecticut shore to the coast of North Africa. Never stayed in the same  
place very long. On the way it was shot at by some maritime bird hunters  
because it chirped so much.

```
      ///|\\
    //(-0-0-)\\
---oooO(_)Oooo-----
| You are a Ham Radio Operator if...                               |
|                                                                     |
| your wife, who is still 130lb, tremendously attractive, comes to |
| you in a hot pink, topless teddy and starts nibbling on your shoulder|
| and you tell her to hang on for a minute because you're just about |
| to make the contact with East Molohavnia.                         |
-----
Burt Fisher
K10IK
```

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Bill Meara <74537.1100@compuserve.com>  
Subject: HW-101 VOX delay problem  
Message-ID: <951129104102\_74537.1100\_EHH69-1@CompuServe.COM>

Anchoroligists:

I have been having a lot of trouble getting the VOX delay circuit on my HW-101  
to work properly. When I start sending CW, the delay time seems to be  
satisfactory, but within 30 seconds or so, the relays are dropping out between  
every letter (20wpm).

I've changed the delay capacitor (C-213) and checked the resistances across the  
cap. I've tried swapping out the 6EA8 relay amplifier tube. No change!

I've been told that there were a lot of problems with this circuit. Does this sound like a component problem or a design shortcoming? Any ideas?

73 de Bill N2CQR/HI8

Running HT-37, Drake 2-B, HW-101, HQ-100 with SP-600 and SX-43 waiting for space on the bench!

QTH: Santo Domingo, Dominican Republic

74537.1100@compuserve.com

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>  
Subject: RE: HW-101 VOX delay problem  
Message-ID: <30BC698B@smtpgate.rfc.comm.harris.com>

Bill, N2CQR/HI8 wrote..

>I have been having a lot of trouble getting the VOX delay circuit on my HW-101

>I've been told that there were a lot of problems with this circuit. Does  
>this sound like a component problem or a design shortcoming? Any ideas?  
> <snip>

Bill, I mostly remember a problem like this years ago with this circuit.

The 6EA8  
relay driver tube gets turned off really well but when ON is starved for current. I

believe the fix was to reduce the cathode resistor by about 25% in value.

Should  
be easy to tack a resistor in parallel with the current value to see if the relay stays

pulled. Good luck and 73. Ed K2MP nr Rochester emg@rfc.comm.harris.com

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: lhalvors@pppl.gov (len halvorsen)  
Subject: HX-1 info?  
Message-ID: <199511291058.FAA14997@pppl.gov>

Does anyone remember a rig called the HX-1?(Stupid question.)

I seem to remember it being a match to the SP-600, and there was an amplifier that went with it, since it was only a 50 watt rig. The amp. was a 200 w. rig, I think.(using a pr. of 4-65's ??? )

There was also a military version of the complete set, if I remember correctly.

Can anyone tell me if I am correct on these facts, or offer me

corrected/new facts on the matching set?

Thanx!

lhalvors@pppl.gov (len halvorsen)

BTW, was the mil. version of the SP600 the R274 ?

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: pmills@cyberhouse.com (Phil Mills)

Subject: Indianapolis info needed

Message-ID: <199511290051.SAA11806@ns.cyberhouse.com>

I will be driving my van to Indianapolis this coming weekend to be there all week for a business meeting and trade show. Can anyone advise if there are any BA interest ham/electronics stores anywhere near worth a visit? BTW, I've already decided it is a tad too far for me to go to Lima, OH to see Fair Radio.

thanks for the help,

Phil

Phil Mills, AB5TH

pmills@cyberhouse.com

713-482-2763

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: bill@texan.frco.com (William Hawkins)

Subject: Interesting ad

Message-ID: <9511290523.AA12442@texan.frco.com>

In the December 95 Antique Radio Classified, page 72:

FOR SALE (2) racks of tube ham gear - \$3000.

Siemens 102 electron microscope - \$10,000.

I thought I'd pass on this opportunity. You can call V. Vogt (isn't he a science fiction author?) at 206 382-5571, in Renton, Washington.

Bill Hawkins bill@bvc.frco.com 612 895-2085 Minneapolis, MN USA

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995



From: jeffa@ix.netcom.com (Jeff Anderson)  
Subject: Looking for HP Rack Flanges  
Message-ID: <199511291430.GAA14859@ix8.ix.netcom.com>

I'm trying to find some rack flanges (ears) so that I can mount my older HP gear into a rack. I'm willing to pay, or trade feet/tilt-bails.

Thanks,

- Jeff, WA6AHL

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: jschwart@ix.netcom.com (John Schwartzberg)  
Subject: National NC-300  
Message-ID: <199511291354.FAA10534@ix8.ix.netcom.com>

Hi Anchorites -

Can anyone give me a brief rundown of the NC-300 receiver? I'd be interested in tube line-up, frequency coverage, features, performance, etc.

TIA,

John  
N0GII  
jschwart@ix.netcom.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: NCNetNaut@aol.com  
Subject: Peeling off of numerals from R390A  
Message-ID: <951128154038\_36941037@mail06.mail.aol.com>

What kind of clear paint or spray should I use to prevent the band numbers on my crystal oscillator dial drum (just to left of the RF deck) from peeling any further? About 90% of the numerals (indicating which band it is on, viz, 00-31), are still in good shape. But left unattended, I'm afraid more of them will peel off. I'm further worried that if I use a paint brush, with the paper looking so brittle, the action of a paint stroke may even cause more peeling. Should I use varnish, shellac, krylon spray or ?? Or should I just leave it alone? Would appreciate your advice.

73's

Tom

KE4RHH

TBridge95@AOL.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: Peeling off of numerals from R390A  
Message-ID: <9511282157.AA07494@bock>

This may be yet another non-pinball use for Cover-Your-Glass Lite (tm), already recommended for preserving dial glasses with reverse printing on the backside. Dribble it on very carefully with an eyedropper.

Shellac may work just as well and be easier to find and use.  
Shellac has the nice property of sticking to metal.  
Good luck es 73, mike k w9nrd

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "Dick Dillman" <ddillman@igc.apc.org>  
Subject: R-390A Ovens  
Message-ID: <90768.ddillman@igc.apc.org>

Here's a question for the R-390A experts among us.

Now that I'm using my 'A for fax reception I find that I need a bit more stability so I've turned the ovens on. The question: Do they remain on, as I assume, even when the FUNCTION switch is set to OFF?

Best Regards,

Dick Dillman/WPE2VT  
<ddillman@igc.apc.org>  
San Francisco

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: maccary@on-ramp.ior.com  
Subject: RTTY interface  
Message-ID: <m0tKcv2-000RtxC@on-ramp.ior.com>

Hello BA experts:

I'm here searching for info again. I have a Galaxy V hybrid rig and an old Atari 1040 that I thought of marrying into a RTTY system but never got rounduit. About a month ago I met a guy who was unloading a whole pickup load of mostly computer stuff at an "as is" store. He saw me looking at some of the gear and said if interested in more to follow him to the source which

I did. There were three huge piles of electronics behind this house that he was asked to dispose of and so he invited me to have at it and the more I took away, the less he would have to haul to the landfill.

In my scavenging I found an MFJ-1229 RTTY/ASCII/CW computer interface sans cables, wall wart, or instructions. Is this thing worth the trouble of trying to hook up to my old rig and computer, and if it is, what do I need to get things going? I assume there must be some sort of software program to make the computer emulate a TTY terminal and probably gets input and output from the RS232 socket. I found a suitable wall wart and the mark-space leds light up momentarily when it is turned on.

I read somewhere that SSB rigs that use TV sweep tubes (the Galaxy has 6HF5's which are rare as hen's teeth) need to be loaded much lower in RTTY service than their CW ratings to avoid sending the sweep tubes to an early grave due to continuous service rather than ICAS, or whatever it is called now.

The only description of the MFJ 1229 I found was an ad in QST for March, 1986 which said it worked with the Commodore or VIC, although somewhere I remember the Atari 1040 mentioned. Any thoughts on all this?

Mac W0NAX

Lawrence M. MacCary --- A Subscriber at Internet On-Ramp, Inc.

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: mflicinski@VNET.IBM.COM

Subject: Sams Book - With BA Schematics

Message-ID: <199511282039.0AA28417@uro.theporch.com>

While rummaging through a local used bookstore I came across a gem... "Troubleshooting Amateur Radio Equipment" circa 1961, by Howard S. Pyle W7OE.

Chapters on receivers, transmitters, antennas, accessories and preventive maintenance. A bonus is "Appendix C" which contains complete schematics for the Collins 75A1, Eico 723, Globe Chief 90, Hallicrafters SX-99, Hammarlund HQ-110, Heath Comanche, Johnson Viking Ranger, National NC-300 and finally the Knight "Space Spanner".

I thought I did OK for \$1.25.

73,

Mike K2UXE (mflicinski@vnet.ibm.com)  
Austin, Texas

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Sweep ckts for AM  
Message-ID: <UPMAIL03.199511282342250598@msn.com>

Mike, I remember using the mechanical wobulators in the service. They seemed to work O.K. for alignment but expensive and hard to get now. USM types if I recall. I haven't built a project in a year or two so I looked thru all my old books and found the following plans for such a device. I have a copy of "Guidebook of Electronic Circuits" by John Marcus (Circa 1972?), on page 852 and again on page 856 there were a couple of simple sweep ckts, alas all solid state. Also found a circuit in 1991 Popular Electronics using a NE602 and a coil, etc. Wriiten by Joe J Carr K4IVP, probably would work O.K. to. BTW , do you work at the LABS, I see your on att.com, Just curious, I'am a maintenance supervior in Houston for the switches.

Al Fritsche  
fritsche@msn.com  
attmail!fritsche

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Sweep generator for am, again  
Message-ID: <UPMAIL03.199511290206150337@msn.com>

I got to thinking I would like to build a sweep generator for am IF alignment. I read the letter from Henry and think that using tubes for the project would be the best way to go for this group, tho I think more expensive and harder to reproduce across the country. (that is if anyone is interested at all).  
Out of curoosity, how many standard IF's were used since the advent of superhet. Can't be more than 3 or 4, I hope. Anybody got a list?

Al Fritsche  
fritsche@msn.com  
attmail!fritsche

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: jcreid@CCGATE.HAC.COM  
Subject: SX-43 info needed

Message-ID: <9510288175.AA817577316@CCGATE.HAC.COM>

Hi Gang,

Picked up a decent Hallicrafters SX-43 at a local swapmeet on Sat. The guy said it worked, but upon bringing it on line, I found that not to be true. The 6BA6 had no emission and the 6SQ7 was pretty weak. The bandspread dial cord was gone and having no documentation, I actually got that part to work. Even after all the fiddling, the 6V6 would not light. One nasty looking octal socket connector and one poorly soldered ground connection later, the radio was making noise. It's still mostly full of wax blob caps, but last night I got the S-meter to work. (It had residue from water evaporation inside it. Yuk!) Now I'm looking for anyone who might have a photocopy of the manual or a copy of Sams 45, #13. I'm also looking for the CW Pitch knob (missing) and perhaps a complimentary speaker (not necessarily Hallicrafters) to go with it. If you can help, e-mail to me directly and the usual reimbursements apply. I'm very happy with the radio and that green glow from the tuning dials and the S-meter are truly beautiful.

-Jim N6SVS  
jcreid@ccgate.hac.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: SX-43 info needed  
Message-ID: <9511282132.AA07479@bock.ih.att.com>

I already offered Jim a zerox of my Sams by private email, but I have a couple general comments.

First, ain't it interesting how much leeway a seller puts into a statement that "a radio is working." Part of this is due, I hope, to sheer ignorance. The quality of sets we deal with allows for quite a few things to be wrong and the rx will still pick up local stations at loudspeaker volume. So always translate "working" into "just barely working" unless you both know better.

I have a Zenith big chairside that works on AM, SW, and both FM bands, and the phono changer plays too. But for some unknown reason sensitivity is down on all bands, so only a few strong stations come thru well. Also on one side of the P-P output xformer is open, but it sounds great even on one lone unbalanced 6V6.

Now I could advertise that set as "working just fine" even tho \*I\* know it's weak and the audio output has a major problem, and the records would sound better and louder on the original Cobramatic changer instead of the V-M retrofit, etc. And I could sell it to someone who would just figure

that these old sets couldn't be expected to do any better.  
Obviously nobody on this List, hi!

But if I didn't know better, I'd be totally honest in saying "it works fine."

2nd point (question): Moore's book, and some other source I forget, lists one of the tubes (maybe 3rd IF) in the SX-43 as a "second converter", implying the set has dual conversion. Like maybe it does what the SX-42 shud've done, namely convert the top two bands clear down to 455 KC IF for AM reception? But my Sams implies no such thing, and I think there is no 2nd conversion in either rx. Who knows for sure?

Actually Moore's has several errors and typos in the tube lineups.  
Should we gin up a list and send it to him? 73, mike k w9nrd

PS: Sams and the Hallicrafters service manual even disagree on some tube functions. Some are reasonable (1st FM limiter versus 3rd FM IF; your choice depending on signal strength) and others more serious, like which detector tube detects what. Sams lists tube functions on the front page, but does not print functions on the schematic itself (boo!).

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: Re: SX-43 info needed  
Message-ID: <Pine.ULT.3.91.951129081844.20491A-100000@admin.aurora.edu>

>  
> 2nd point (question): Moore's book, and some other source I forget, lists  
> one of the tubes (maybe 3rd IF) in the SX-43 as a "second converter",  
> implying the set has dual conversion. Like maybe it does what the SX-42  
> shud've done, namely convert the top two bands clear down to 455 KC IF  
> for AM reception? But my Sams implies no such thing, and I think there  
> is no 2nd conversion in either rx. Who knows for sure?

Yes, the SX43 is dual conversion on band 4 so you can get either AM or FM on that band. The BFO stage acts as the osc for that conversion and runs at 11.155 MHz (oops I mean Mc :-).

Bob, K9EUI

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: bwb%sirius.triad.com%triada.triad.com@triada.triad.com (Bruce Bacon)  
Subject: Taping from an R390A

Message-ID: <9511282118.AA04158@sirius.triad.com>

Greetings all,

The medium wave DX season is warming up here on the west coast with the split channel Japanese stations coming in strong after 2330 local time. Til now, I've been taping DX from a ricebox rx with it's sanitary "rec out" jack. The ricebox doesn't hold a candle to R390A in terms of sensitivity and selectivity, and I'd like to start taping from it. Is there a "standard" tape out modification (reversible!) that can be made on the R390A? Funny, after being a list subscriber for almost three years, I haven't seen mention of modifying an rx for a tape out jack. The recorder is ricebox (dual cassette) of recent vintage. Any takers on this one?

Tnx es 73,

--

-Bruce Bacon KE6GLS (replies to - bwb@triad.com) Livermore, CA

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: Michael.J.Knudsen@att.com

Subject: Re: Taping from an R390A

Message-ID: <9511282223.AA07523@bock.ih.att.com>

I'd try tapping across the Diode Load terminals, thru a blocking capacitor on the hot side. You may also want a resistor voltage divider if this signal is too hot for your recorder's Aux/Line input.

Even simpler, try the Line Audio outputs. You can even control the volume level separately from the speaker, and monitor it on the cute but normally useless VU meter.

You're lucky; most BA rx don't have an audio output other than speaker and headphones (which cuts off the speaker). 73, mike k w9nrd

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: "Dick Dillman" <ddillman@igc.apc.org>

Subject: Re: Taping from an R390A

Message-ID: <199511282248.0AA13817@igc3.igc.apc.org>

> sensitivity and selectivity, and I'd like to start taping from it. Is  
> there a "standard" tape out modification (reversible!) that can be made  
> on the R390A?

As others will probably advise, the line output on the R-390A is just what you want for audio taping. I'm using that output on my '390 to feed a fax machine at the moment but I'm sure it will do the trick for audio taping too. Plus you have front panel control of the level to the tape recorder as well as a VU meter. No ice box will give you those features (with apologies to my faithful ICF-2010)

Best Regards,

Dick Dillman/WPE2VT  
<ddillman@igc.apc.org>  
San Francisco

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Michael Covington <mcovingt@ai.uga.edu>  
Subject: Tek 570 clone out of 575?  
Message-ID: <199511291420.JAA27486@aisun3.ai.uga.edu>

I may have missed a step in the discussion, but adapting a 575 to test (low-power) tubes doesn't seem all that hard, and could be done by making an external plug-in jig. (Testing high power tubes is a different matter entirely.)

- (1) The plate (= collector) voltage already goes to 200.
- (2) To get grid voltages, you put a 1k precision resistor from grid to ground, and then inject a "base current." The current source will go to about 50 volts. This is how I test FETs.
- (3) You need separate power supplies for the heater and for the screen grid, if any.

I haven't actually tried this, but I'll probably try testing some tubes within a week, just to see what I get.

--

Michael A. Covington	<a href="http://www.ai.uga.edu/faculty/covington/">http://www.ai.uga.edu/faculty/covington/</a>
Artificial Intelligence Center	<><
The University of Georgia	Unless specifically indicated, I am
Athens, GA 30602-7415 U.S.A.	not speaking for the University.

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: w7ni@teleport.com (Stan Griffiths)  
Subject: Re: Tek 570 clone out of a 575?  
Message-ID: <199511281706.JAA21430@desiree.teleport.com>



>I'm CC'ing Stan with this. I've got a nice 575 Mod122C that I use for  
>a lot of things. Handy box to have around, as a 575.

>I did take a quick stab at the idea of using the 575 for vacuum tubes.  
>Trying to convert 575 internals for this looks to me like a terrible  
>way to go.

>Stan may have a better handle than I do on who bought 570's when they  
>were in production, and what they got used for. But it seems to me  
>that the world didn't beat a path to Tek's door to buy them, and I  
>think most of them got used to match tubes in quantity for DC  
>characteristics, and most of the others were used either as classroom  
>aids for demonstrating what's on the manufacturer's graphs or similar  
>uses.

I think most of them went to schools who were teaching vacuum tube principles.

>So I think the answer to whether you can kludge up 570 functionality  
>around a 575 is "yes, but why?"

My guess is because the value of a 570 has been blown way out of proportion compared to the value of the information it can really give you. My personal opinion is that a 575 can give you information about transistors that is worth 100 times as much as the information that a 570 can give you about tubes. A 570 ought to be worth \$50 if the price were based on the same things you base the price of other Tek scopes of the same vintage on, ie: what is the data you can get from it worth? The fact that some people are willing to pay \$2000 for a 570 has fostered the illusion that they are worth that much. They are, in the sense that the market will allow it, but a fake 570 is only worth what the data is worth that you can get from it, ie: \$50. A good 575, on the other hand, is probably worth \$200. Why would you want to sacrifice it to make a fake 570 worth \$50?

>I certainly would not put a good working 575 out of business. They  
>sold like hotcakes (and the follow-on 576 and 577 probably sell pretty  
>well, too) because semiconductors are a lot more variable, and there  
>are thousands out there that nobody ever heard of except the people who  
>bought them originally.

Owning a 570 is clearly a mark of prestige among tube audio people. Owning two or three of them earns you even more prestige. Since I don't understand what turns on the dedicated tube audio people, I really don't know if a converted 575 would carry any prestige with this group or not. If it would, then that might be the answer to the question, "Why would anyone want to sacrifice a 575 to make it check tubes?"

Stan W7NI@teleport.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: mack@mails.imed.com  
Subject: Transformer Winding resistance  
Message-ID: <9510288175.AA817594692@mails.imed.com>

Rodger Singley wondered why his transformer measured 45 ohms one side and 48 ohms on the other side when the manual says 50 ohms.

Remember that when that manual was written, about the only way to measure resistance (and the manual was written for repair personnel not lab personnel) was with a Tripplett or Simpson VOM or VTVM. My 260 is doing well to get even close to measuring 50 ohms accurately! 45 ohms and 48 ohms are WELL within manufacturing and measurement tolerances for the time of manufacture. Said another way: both these values ARE 50 ohms.

I concur with all of the speculation that the outer winding has more copper and therefor has more DC resistance. A difference of 3 ohms out of a AC resistance of several thousand for an audio transformer is insignificant. A difference of 3 ohms for a power transformer delivering 250 volts @ hundreds of mA is also insignificant.

Just my \$0.02 worth.

Ray Mack  
WD5IFS  
mack@mails.imed.com

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: David Stinson <72227.1640@compuserve.com>  
Subject: Valuable Reminder  
Message-ID: <951129074428\_72227.1640\_EHM45-8@CompuServe.COM>

Jack/All:

Thanks for the reminders, especially about the email address in the signature. It's one I've often forgotten, and I've paid the price in missed correspondence.  
73 DE Dave Stinson AB5S/7  
72227.1640@compuserve.com

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995

From: Jim Clark <jclark@asu.edu>  
Subject: Variable Condenser Cleaning  
Message-ID: <199511282231.PAA16617@x1.asu.edu>

Tom Rice posted a question about how best to remove the crud from some tuning caps. The green stuff on the brass is copper oxide, and the white stuff on the aluminum is aluminum oxide. I have found that phosphoric acid is a great oxide remover. Cut it one part acid to two parts water for strong solution, ten parts water for weak solution. Dunk the part in a beaker full and let it soak for a while. You'll see small bubbles rising from the oxidized areas as the acid does its thing. Rinse the part in warm water when finished. Avoid contact with skin, and use eye protection just to be on the safe side. Phosphoric is not as nasty as some of the other acids - in fact, I believe it is the active agent in Naval Jelly. Good luck.

Jim Clark  
e-mail: jclark@asu.edu

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: mallick@orion.crd.ge.com (John Mallick)  
Subject: Re: Variable Condenser Cleaning  
Message-ID: <9511282251.AA03311@orion.crd.ge.com>

Jim wrote...

> Tom Rice posted a question about how best to remove the crud from  
> some tuning caps. The green stuff on the brass is copper oxide,  
> and the white stuff on the aluminum is aluminum oxide. I have  
> found that phosphoric acid is a great oxide remover. Cut it

.stuff deleted..

Isn't phosphoric acid found in Coca-Cola (tm)? It's often been touted as a rusty bolt remover...

> warm water when finished. Avoid contact with skin, and use eye  
> protection just to be on the safe side. Phosphoric is not as nasty  
> as some of the other acids - in fact, I believe it is the active  
> agent in Naval Jelly. Good luck.

>  
> Jim Clark  
> e-mail: jclark@asu.edu  
>  
>

Hmm...things may not go better with Coke...

I think Barry Ornitz recommended using a hot bath of lemon juice for cleaning variable caps a while back...Barry???

73, John WA1HNL

From boatanchors@theporch.com Wed Nov 29 14:43:00 1995

From: john <johnmb@nando.net>

Subject: Re: Variable Condenser Cleaning

Message-ID: <9511290215.AA29797@merlin.nando.net>

At 05:00 PM 11/28/95 -0600, you wrote:

>Jim wrote...

>

>

SNIP

>> warm water when finished. Avoid contact with skin, and use eye  
>> protection just to be on the safe side. Phosphoric is not as nasty  
>> as some of the other acids - in fact, I believe it is the active  
>> agent in Naval Jelly. Good luck.

>>

>> Jim Clark

>> e-mail: jclark@asu.edu

>>

>>

>

>Hmm...things may not go better with Coke...

>

>I think Barry Ornitz recommended using a hot bath of lemon juice for  
>cleaning variable caps a while back...Barry???

>

>73, John WA1HNL

>

An early issue of Electric Radio had a tip  
about cooking a variable (i kid you not) in tomato sauce  
(chunky, or italian style, not indicated). The author noted  
how clean the inside of an aluminum pan was after making  
spaghetti or something, and following good scientific  
method, dumped in a variable that needed cleaning.

YMMV...he claimed it worked....

/john

From boatanchors@theporch.com Tue Nov 28 19:43:43 1995  
From: merrigan@ee.ualberta.ca (Shaun Merrigan)  
Subject: Wanted 70E-15 PT0  
Message-ID: <199511282255.QAA04389@uro.theporch.com>

I would like to get ahold of a couple of "dead", useless, or otherwise scrapped R388 PT0's for testing purposes. Among other things, I am going to get to the bottom of the drifting problem..... The PT0's don't have to be complete or even working; in fact I'd rather get dead or cannibalized ones. Ladies and gentlemen, send me your junk!!

I am appealing to the goodwill of my fellow BA'ers in the spirit of scientific research ;-) .

--

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Shaun P. Merrigan  
3rd Year EE University of Alberta  
merrigan@nyquist.ee.ualberta.ca (Shaun Merrigan)  
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From boatanchors@theporch.com Wed Nov 29 14:43:00 1995  
From: Peter Gerba <pgerba@crl.com>  
Subject: WTB cabinet for TMC GPR-90  
Message-ID: <Pine.SUN.3.91.951128211221.16298A-100000@crl12.crl.com>

I'm looking for a cabinet and speaker for a TMC GPR-90 receiver.

The last time I went looking for a speaker I found one for \$300 and one for \$700. That's a little high for me. If you have one of these items you want to sell you can respond via E-mail or call me collect at 415-864-3165.

thanks, pete  
pgerba@crl.com